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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,463	02/09/2001	Chi-Yu Liao	API084	9449

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P.O. BOX 506
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EXAMINER

SCHECHTER, ANDREW M

ART UNIT PAPER NUMBER

2871

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,463

Applicant(s)

LIAO, CHI-YU

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Method of performing a uniform illumination pattern in a back-light plate using a press".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki et al.*, Japanese Patent Document No. 4-278922 in view of *Umemoto et al.*, U.S. Patent No. 6,199,995.

Suzuki discloses [see Figs. 1 and 2, for instance] a method of forming a uniform illumination pattern in a back-light plate [2], comprising two parallel faces [top and bottom] and an incident side [next to the light 5], and when a visible light is incident it is reflected through the illuminating faces [shown in Fig. 1c, for instance], by making a plurality of recesses [6] which forms the pattern to make the plate uniformly illuminated.

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Suzuki does not explicitly disclose [from the figures] that the method utilizes a press with protruding elements to press an illuminating face to form the recesses.

However, using such a press is one of several methods recommended by *Umemoto* [col. 11, lines 9-20] for making an analogous device. Among the methods listed (which are considered art-recognized equivalents to each other) is "transferring a specified shape to a thermoplastic resin by pressing it under heating to a mold capable of forming that shape". It would be obvious to one of ordinary skill in the art to use this method, motivated by *Umemoto's* teaching that it is preferred from the viewpoint of allowing for mass production. Claims 1 and 5 are therefore unpatentable.

Suzuki also discloses that the recess size is larger and the spacing with its adjacent recess is shorter as the distance between the recess and the incident side gets longer [see Figs. 1 and 2]. Claim 3 is therefore also unpatentable.

4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki et al.*, Japanese Patent Document No. 4-278922 in view of *Umemoto et al.*, U.S. Patent No. 6,199,995 and further in view of *Fukui et al.*, U.S. Patent No. 5,980,054.

Suzuki does not explicitly disclose [from the figures] that the back-light plate is for a flat-bed scanner or an LCD monitor, though such use is well-known and conventional. *Fukui*, for instance, discloses that an analogous back-light plate is used for back-lighting an LCD monitor [col. 1, lines 5-7], and it would be obvious to one of ordinary skill in the art to use the device of *Suzuki* this way, motivated by such use being conventional and providing a commercial use for *Suzuki's* device. Claim 2 is therefore unpatentable.

The device of *Suzuki* in view of *Umemoto* does not disclose using a roller to form the recesses. However, using a roller is an art-recognized equivalent to using a (flat) press to mold the back-light unit, as evidenced by *Fukui* [col. 7, lines 25-27], listing "press molding, injection molding, roller molding, or the like" as methods of preparing an analogous photoconductor. It therefore would have been obvious to one of ordinary skill in the art, motivated by the equivalence of the two methods, to use a roller to produce the recesses. Claim 4 is therefore unpatentable.

5. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki et al.*, Japanese Patent Document No. 4-278922 in view of *Umemoto et al.*, U.S. Patent No. 6,199,995 and further in view of *Ohara et al.*, U.S. Patent No. 5,844,720 and *Nyborg*, U.S. Patent No. 5,451,286.

The device of *Suzuki* in view of *Umemoto* does not explicitly disclose a flat pressing face and a base. *Ohara*, like *Fukui*, teaches that a variety of methods are art-recognized equivalents for forming such sheets [col. 7, lines 17-21] and specifically discloses a hot, flat pressing face and a base [see example 1]. It would therefore be obvious to one of ordinary skill in the art to carry out the "pressing it under heating to a mold" taught by *Umemoto* by using the hot, flat pressing face and base of *Ohara*. Claims 5 and 6 are therefore unpatentable.

The first and second depth limiters recited by claim 7 are just a conventional depth stop, as disclosed by *Nyborg* [see Fig. 3] and common in any type of press. It would be obvious to one of ordinary skill in the art to use such a depth stop, motivated by the desire to control the depth and assure a uniform product.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,522,373 to *Hira et al.* discloses the method recited by claims 1-3, except that the two illuminating faces of the back-light plate are at an angle to each other, rather than being "parallel" as required in claim 1.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (703) 306-5801. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4711 for regular communications and (703) 746-4711 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AS

Andrew Schechter
March 20, 2003


SUPERVISOR
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